REMARKS

In the Office Action, the Examiner rejected claims 25-29 and 31-36 under 35 USC 103 and claims 25-36 under 35 USC 112. The rejections are fully traversed below.

Claim 63 has been amended. Claims 25-36 and 60-73 are pending in the application. Reconsideration of the application is respectfully requested based on the following remarks.

Specification

The trademark name MYLAR has been capitalized in the specification as well as the claims as shown above. Generic terminology has also been added to the specification. Particularly, that MYLAR is a plastic material and more particularly that it is a polyester film. A document describing MYLAR is enclosed herewith.

ISSUES UNDER 35 USC 112(2)

Claim 63 has been rejected under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The rejection has been overcome by the amendment made above. In particular, claim 63 has been amended to change Mylar to MYLAR.

ISSUES UNDER 35 USC 103(a)

Claims 25-28, 31-36, 60, 65-68, 70 and 73 have been rejected under 35 U.S.C. §103(a) as being unpatentable over *Nakajima* (US 5,715,139) in view of *Shih* (US 6509981).

Up to the point of this invention, drives including CD/DVD drives had their own enclosure that fully contained the components of the drive. The drive enclosure was installed into a slot in the base of a portable computer in order to connect it to the portable computer. As discussed in the background of the present invention, this technique unfortunately leads to

redundant features. That is, the drive components of the drive are disposed inside a double box, i.e., an enclosure inside an enclosure, and therefore they have double features that serve the same purpose (redundant). As should be appreciated, when installed inside the base of the portable computer, the walls of the drive enclosure and the walls of the base both surround the components of the drive. As further stated in the background of the present invention, "While double protection may sound good, the double box tends to add unnecessary mass, volume and expense to the portable computer. These are undesirable traits that go against the current trend to make portable computers cheaper, thinner and lighter. The extra layer of material may also inhibit the dissipation of heat from the drive components..."

The present invention tries to overcome these disadvantages by utilizing an enclosureless optical drive. By enclosureless, it is meant that the drive does not include its own housing and thus it is thinner, lighter and cheaper than conventional drives. While the optical drive of the present invention may not include a housing, it does include frame components that consist of structural members that support the drive components. The frame components typically take the form of a skeletal system and therefore there are many openings surrounding the drive components. These openings may allow the passage of undesirable electronic emissions and unwanted loose particles (dust) and therefore portions of the base are thus configured to house the enclosureless optical disc drive.

No such system is described in the cited art. Neither reference teaches or suggests "an enclosureless drive" let alone "...an enclosureless optical drive having drive components and frame components configured to support the drive components, the frame components taking the form of a skeletal system..." In addition, neither reference teaches or suggests, "...the casing and chassis having interior portions that define an enclosed region inside the base...the enclosed region being arranged to surround a substantial portion of the enclosureless optical disc drive so as to shield the enclosureless optical disc drive from internal and external hazards capable of passing through the skeletal system of the frame components," as required by claim 25 (and its dependents). As should be appreciated, the combination of an enclosureless drive and a "chassis" and the "casing" that encloses the enclosureless optical disc drive prevents the unwanted double box.

In *Nakajima*, the floppy disk drive 50 includes a casing and therefore it is not enclosureless. *Nakajima* states, "As shown in Fig. 11, the FDD 50 has a boxed shaped casing 51

(Col. 8, lines 57-58)." Furthermore, the FDD 50 is encased in casing 51 and the casing 51 is surrounded by portions of the portable computer thereby forming a double box (See Cols. 9 and 10, lines 66-24).

Shih does not overcome the deficiencies of *Nakajima*. *Shih* discloses a fixed housing 2 and thus does not disclose an enclosureless optical drive as the housing 2 provides an enclosure to the device 1. Furthermore, *Shih* teaches away from the present invention by teaching a double box. *Shih* states, "the media access device 1 comprises a fixed housing 2 mountable into a floppy bay within a computer...(Col. 2, lines 32-35)." As should be appreciated, mounting a fixed housing into a floppy bay of a computer creates a double box, i.e., the fixed housing encloses the media access device 1, and the floppy bay of the computer encloses the fixed housing 2. Not only that, but *Shih* may in fact teach a triple box. *Shih* further states, "...a moveable housing 3 being moveably disposed within the fixed housing 2...(Col. 2, lines 35-36)." In this configuration, the moveable housing 3 encloses the media access device 1, the fixed housing 2 encloses the moveable housing 3, and the he floppy bay of the computer encloses the fixed housing 2. Accordingly, the rejection is unsupported by the art and should be withdrawn.

The rejections to claim 66 (and its dependents) should be withdrawn for at least the same reasons. Neither references teaches or suggests, "...an optical drive including internal components and frame components configured to support the internal components, the frame components having one or more openings that leave at least a portion of the internal components of the optical drive exposed, the optical drive being disposed inside the enclosed region of the base, the enclosed region being dimensioned to surround the peripheral regions of the optical drive so as to cover at least the exposed portions of the optical drive and to shield the optical drive from internal and external hazards..." as required by claim 66. Both references fail to disclose exposed portions that are covered. Accordingly, the rejection is unsupported by the art and should be withdrawn.

Claims 29, 63, 64, 71 and 72 have been rejected under 35 U.S.C. §103(a) as being unpatentable over *Nakajima* as modified by *Shih* as applied to the claims above, and further in view of *Chee* (US 6,324,054).

The rejections to claims 29, 63, 64, 71 and 72 should be withdrawn for at least the same reasons as above. That is, *Chee* does not overcome the deficiencies of *Nakajima* and *Shih*. All

the references fail to teach or suggest "an enclosureless optical disc drive" as well as "a skeletal system" as required by claim 25 from which claims 29, 63 and 64 depend and "...the frame components having one or more openings that leave at least a portion of the internal components of the optical drive exposed...the enclosed region being dimensioned to surround the peripheral regions of the optical drive so as to cover at least the exposed portions of the optical drive and to shield the optical drive from internal and external hazards...," as required by claim 66 from which claims 71 and 72 depend

Even though this is the case, it is still believed that *Chee* fails to disclose "a thin flexible boot configured to surround at least a portion of the enclosureless optical disc drive so as to prevent particles from reaching the drive components," as required by claim 29 as well as "...a flexible sheath for surrounding at least a portion of the optical drive in order to prevent dust and loose particles from reaching the internal components of the optical drive wherein the thin flexible sheath is sized to fit over the frame components so as to cover exposed portions of the optical drive," as required by claim 71.

While *Chee* may disclose a shock absorbing material 300, *Chee* does not teach or suggest a thin flexible boot or a boot that prevents particles from reaching the drive components. For one, *Chee* is silent to preventing particles from reaching the drive components via the shock absorbing material 300, i.e., the disc drive apparatus 200 already includes a housing 202. For another, the absorbing material of *Chee* would not prevent particles from reaching drive components as it includes openings for allowing particles to reach the drive. *Chee* states, "...The shock absorbing material has openings 302...(Col. 4, lines 47-48)." For yet another, the shock absorbing material is used to prevent shocks and vibrations and thus it seems a certain thickness is needed, and weight is of no concern (e.g., formed from rubber). As should be appreciated, this goes against the trend in portable computers (thin and light). For example, MYLAR typically has a thickness on the order of 1 to 7 mils (0.023-0.18 mm), and more particularly between about 1-5 mils (0.023-0.13 mm) while the shock absorbing material has a thickness ranging from 30 to 500 mils (see Col. 4, line 60). Accordingly, the rejection is unsupported by the art and should be withdrawn.

With regards to claims 64 and 72, the shock absorbing material does not cover exposed portions such as the sides, top, bottom and backside of the drive. As should be appreciated, the shock absorbing material 300 includes opening 302 and thus it does not cover portions of the sides, top and bottom of the drive. Accordingly, the rejection is unsupported by the art and should be withdrawn.

With regards to claim 63, the Examiner asserted that the Applicant has not disclosed that MYLAR solves any stated problems or is for any particular purpose. MYLAR however is a thin and light weight material as opposed to the shock absorbing material 300 of *Chee*. As mentioned in the background, the present invention is trying to prevent unnecessary mass, volume, and expense as these are undesirable traits that go against the current trend to make portable computers cheaper, thinner and lighter. Furthermore, it is a material that can be used in electronic devices. Accordingly, the rejection is unsupported by the art and should be withdrawn.

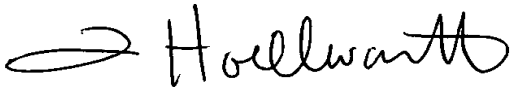
Allowable Subject Matter

Claim 30, 61, 62 and 69 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all the limitations of the base claim and any intervening claims.

SUMMARY

Applicants believe that all pending claims are allowable and respectfully requests a Notice of Allowance for this application from the Examiner. Should the Examiner believe that a telephone conference would expedite the prosecution of this application, the undersigned can be reached at the telephone number set out below.

Respectfully submitted,
BEYER WEAVER & THOMAS, LLP



Quin C. Hoellwarth
Reg. No. 45,738

P.O. Box 778
Berkeley, CA 94704-0778
(650) 961-8300

Mylar®
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Introduction to Mylar® Polyester Films

Mylar® is a biaxially oriented, thermoplastic film made from ethylene glycol and dimethyl terephthalate (DMT).

Since DuPont first introduced Mylar® polyester film in the early 1950s, it has been used in a variety of applications that add value to products found in virtually all segments of the world economy. After more than 40 years, the future still holds great promise for Mylar®. Its excellent balance of properties and extraordinary range of performance capabilities make Mylar® ideal for a broad array of applications in the electrical/electronics, magnetic media, industrial specialty, imaging/graphics, and packaging markets.

Equally important to the versatility of Mylar® is its environmental friendliness. It is one of the most environmentally safe polymer products made today.

Mylar® polyester film, only by DuPont Teijin Films, is available uncoated or coated and in a broad variety of gauges and widths. We are committed to continually developing and improving our product offering. If you have an idea or a special need for a new film, we're ready to explore the possibilities. Just speak with your DuPont Teijin Films sales representative or give us a call at (800) 635-4639.

Balance of Properties

Mylar® polyester films have a unique combination of **physical**, **chemical**, **thermal**, and **optical** properties:

- **Strong, tough, brilliant, and clear.**
- **Ease of converting:** laminating, extrusion coating, embossing, metallizing, printing, punching, corrugation, dyeing, stamping or forming.
- **Ease of handling on high-speed equipment.**
- **Retain mechanical properties:** stiffness, strength, toughness, dimensional stability, and optical clarity, over an exceedingly wide range of temperatures.
- **Excellent temperature resistance.**
- **Readily combined with other materials.**
- **Strong tear-initiation and puncture resistance.**
- **Excellent oil, grease, or moisture barrier resistance.**
- **Excellent chemical resistance.**